

**What is claimed is:**

- ~~1. An isolated polynucleotide comprising a member selected from the group consisting of:~~
- ~~(a) a polynucleotide having at least a 70% identity to a polynucleotide encoding a polypeptide comprising amino acids 1 to 256 of SEQ ID NO:2;~~
- ~~(b) a polynucleotide which is complementary to the polynucleotide of (a); and~~
- ~~(c) a polynucleotide comprising at least 15 bases of the polynucleotide of (a) or (b).~~
- ~~2. The polynucleotide of Claim 1 wherein the polynucleotide is DNA.~~
- ~~3. The polynucleotide of Claim 1 wherein the polynucleotide is RNA.~~
- ~~10 4. The polynucleotide of Claim 2 comprising nucleotide 1 to 771 set forth in SEQ ID NO:1.~~
- ~~5. The polynucleotide of Claim 2 comprising nucleotide encoding the amino acid sequence set forth in SEQ ID NO:2.~~
- ~~15 6. The polynucleotide of Claim 2 which encodes a polypeptide comprising amino acid 1 to 256 of SEQ ID NO:2.~~
- ~~7. An isolated polynucleotide comprising a member selected from the group consisting of:~~
- ~~(a) a polynucleotide having at least a 70% identity to a polynucleotide encoding the same mature polypeptide expressed by the cDNA contained in NCIMB Deposit No.40771;~~
- ~~20 (b) a polynucleotide complementary to the polynucleotide of (a); and~~
- ~~(c) a polynucleotide comprising at least 15 bases of the polynucleotide of (a) or (b).~~
- ~~8. A vector comprising the DNA of Claim 2.~~
- ~~9. A host cell comprising the vector of Claim 8.~~
- ~~25 10. A process for producing a polypeptide comprising: expressing from the host cell of Claim 9 a polypeptide encoded by said DNA.~~
- ~~11. A process for producing a cell which expresses a polypeptide comprising transforming or transfecting the cell with the vector of Claim 8 such that the cell expresses the polypeptide encoded by the cDNA contained in the vector.~~
- ~~30 12. A polypeptide comprising an amino acid sequence which is at least 70% identical to amino acid 1 to 256 of SEQ ID NO:2.~~
- ~~13. A polypeptide comprising an amino acid sequence as set forth in SEQ ID NO:2.~~
- <sup>14.</sup> ~~16. An antibody against the polypeptide of Claim 12.~~

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17. An antagonist which inhibits the activity of the polypeptide of Claim 12.
18. A method for the treatment of an individual having need of FAB I comprising: administering to the individual a therapeutically effective amount of the polypeptide of Claim 12.
- 5 19. The method of Claim 17 wherein said therapeutically effective amount of the polypeptide is administered by providing to the individual DNA encoding said polypeptide and expressing said polypeptide in vivo.
- 10 18 20. A method for the treatment of an individual having need to inhibit FAB I polypeptide comprising: administering to the individual a therapeutically effective amount of the antagonist of Claim 16.
- 19 21. A process for diagnosing a disease related to expression of the polypeptide of Claim 12 comprising:
- determining a nucleic acid sequence encoding said polypeptide.
- 20 22. A diagnostic process comprising:
- 15 analyzing for the presence of the polypeptide of Claim 12 in a sample derived from a host.
- 21 23. A method for identifying compounds which bind to and inhibit an activity of the polypeptide of Claim 12 comprising:
- contacting a cell expressing on the surface thereof a binding for the polypeptide, said binding being associated with a second component capable of providing a detectable signal in response to the binding of a compound to said binding, with a compound to be screened under conditions to permit binding to the binding; and
- determining whether the compound binds to and activates or inhibits the binding by detecting the presence or absence of a signal generated from the interaction of the compound with the binding.
- 25 22 24. A method for inducing an immunological response in a mammal which comprises inoculating the mammal with FAB I, or a fragment or variant thereof, adequate to produce antibody to protect said animal from infection by a staphylococcus.
- 23 25. A method of inducing immunological response in a mammal which comprises, through gene therapy, delivering gene encoding FAB I fragment or a variant thereof, for expressing FAB I, or a fragment or a variant thereof in vivo in order to induce an immunological response to produce antibody to protect said animal from disease.
- 24 26. An immunological composition which, when introduced into a mammalian host, induces an immunological response in that mammal to a given FAB I polynucleotide

or protein coded therefrom, wherein the composition comprises a recombinant FAB I polynucleotide or protein coded therefrom comprising DNA which codes for and expresses an antigen of said FAB I polynucleotide or protein coded therefrom.

